

Claims

1. An analog display instrument, in particular for use in motor-vehicle dashboards, with the instrument
5 having an indicator (2) which moves in front of a scale (1),

characterized by
a guide (3) which is in the form of a straight line or a curve, it being possible for the indicator (2) to be
10 moved linearly along the guide (3) in the forward and backward directions by an electrically controllable drive (4).

2. The instrument as claimed in claim 1,
15 characterized
in that the indicator (2) is arranged on a slide which is positively guided along the guide (3) and can be moved directly by the drive (4) which is likewise seated on the slide (8).

20 3. The instrument as claimed in claim 1 or 2, characterized
in that the drive (4) is a linear drive.

25 4. The instrument as claimed in claim 3, characterized
in that the linear drive (4) is a piezomotor which moves along the fixed and guide (3), with a drive part (7) of the piezomotor engaging on the guide (3) in a
30 non-positive manner.

5. The instrument as claimed in claim 4, characterized
in that the guide (3) is a rod on which the piezomotor
35 is seated, with the piezomotor having a drive part with a vibration element (7) which engages on the rod and pushes off from the rod on account of elliptical

movements.

6. The instrument as claimed in one of the preceding claims,

5 characterized

in that the position of the slide (8) or of the indicator (2) in relation to the guide (3) and therefore in relation to the scale (1) can be established using a sensor system.

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7. The instrument as claimed in one of the preceding claims,

characterized

15 in that an electrically conductive track with a homogeneous resistance is provided along the guide (3), on which track a current collector of the slide (8) rests, with a maximum voltage being applied over the length of the track between a starting position and a maximum position of the slide, and it being possible to
20 tap off a partial voltage across the current collector.

8. The instrument as claimed in claim 7,

characterized

25 in that the current is tapped across the vibration element (7) which is in contact with the track.

9. The instrument as claimed in claim 7,

characterized

30 in that the ends of the track and the tap are connected by the current collector in the manner of a measuring bridge which can be used to calculate the position of the current collector on the track and therefore the actual position of the indicator (2) in relation to the scale (1).

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10. The instrument as claimed in one of the preceding claims,

characterized by

a control loop which forwards the actual position of

the indicator to a controller as an input variable which said controller compares with a prespecified desired position, with the controller forwarding the control difference to the piezomotor as an output
5 variable.

11. The instrument as claimed in one of the preceding claims,
characterized by
10 a circuit for adjusting the zero point, which circuit performs an adjustment when the indicator (2) is in its starting position.

12. The instrument as claimed in one of the preceding
15 claims,
characterized
in that the guide, in particular the rod, is produced from a conductive material, in particular from a plastic provided with carbon.